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Patent

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Maliszewski

Application No.: 09/821,271

Filed: March 29, 2001

For: A Method for Maintaining a Security
Perimeter During the Handling of
Digital Content

)
) Examiner: Brown, Christopher J.

)
) **Art Group: 2134**

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF
IN SUPPORT OF APPELLANT'S APPEAL
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

Applicant (hereinafter "Appellant") hereby submits this Brief in support of its appeal from a final decision by the Examiner, mailed March 15, 2006, in the above-captioned case. Appellant respectfully requests consideration of this appeal by the Board of Patent Appeals and Interferences (hereinafter "Board") for allowance of the above-captioned patent application.

An oral hearing is not desired.

TABLE OF CONTENTS

I.	REAL PARTY IN INTEREST.....	3
II.	RELATED APPEALS AND INTERFERENCES.....	3
III.	STATUS OF THE CLAIMS.....	3
IV.	STATUS OF AMENDMENTS.....	3
V.	SUMMARY OF THE INVENTION.....	4
VI.	GROUND OF REJECTION TO BE REVIEWED ON APPEAL.....	6
VII.	ARGUMENT.....	7
VIII.	CONCLUSION	14
IX.	APPENDIX OF CLAIMS.....	i
X.	EVIDENCE APPENDIX.....	vi
XI.	RELATED PROCEEDINGS APPENDIX.....	vii

I. REAL PARTY IN INTEREST

The invention is assigned to Intel Corporation, 2200 Mission College Boulevard, Santa Clara, California 95052, USA.

II. RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge, there are no appeals or interferences related to the present appeal that will directly affect, be directly affected by, or have a bearing on the Board's decision.

III. STATUS OF THE CLAIMS

Claims 1-24 are currently pending in the above-referenced application. No claims have been allowed. Claims 1-24 are the subject of this appeal.

IV. STATUS OF AMENDMENTS

In response to a Final Office Action, mailed on March 15, 2006, rejecting claims 1-24, Appellant filed a Response After Final under 37 C.F.R. §1.116 on May 15, 2006. The Examiner mailed an advisory action on June 7, 2006, entering the amendments from the Response After Final and maintaining the rejections from the Final Office Action. Appellant filed a Notice of Appeal on June 13, 2006.

A copy of all claims on appeal is attached hereto as an Appendix of Claims.

V. SUMMARY OF THE INVENTION

According to one embodiment, a computer system is disclosed. The computer system includes a compressor/decompressor (codec). **See Figure 3, 330 and Specification at page 11, paragraph [0033].** The computer system further includes a system module which has one or more functions that are called by the codec to render compressed content. **See Figure 3, 340 and Specification at page 11, paragraphs [0034] and [0038].** The computer system further includes an integrity agent to enforce conditions of use for the received content by examining a first voucher describing the integrity of the codec and a second voucher describing the integrity of the one or more functions that are to be accessed by the codec. **See Figure 3, 320 and Specification at page 12, paragraphs [0036] and [0037].**

According to another embodiment, a trusted player includes a compressor/decompressor (codec) (**See Figure 3, 330 and Specification at page 11, paragraph [0033]**) and an integrity agent to enforce conditions of use for content received at the trusted player by examining a first voucher describing the integrity of the codec and a second voucher describing the integrity of one or more functions that are to be accessed by the codec. **See Figure 3, 320 and Specification at page 12, paragraphs [0036] and [0037].**

In yet a further embodiment, a method includes receiving content at a compressor/decompressor (codec). **See Figure 5, 510 and 520 and Specification at page 13, paragraph [0041].** The method further includes calling a function of a first component of a system module from the codec to assist in decoding the digital content. **See Figure 5, 530 and Specification at page 13, paragraph [0042].** Further,

intercepting the function call to the first component of the system module at an integrity agent in order to enforce conditions of use of the content by examining a voucher describing the integrity of one or more functions that are to be accessed by the codec. **See Figure 5, 540 and Specification at page 13, paragraph [0042].** The method further includes verifying the authenticity of the first component of the system module at the integrity agent by computing a digest of a memory image of the first component. **See Figure 5, 550 and 560 and Specification at page 14, paragraph [0043].**

In still a further embodiment, an article of manufacture is disclosed that includes one or more computer readable media that embody a program of instructions. **See Figure 2 and Specification at pages 6 and 7-10, paragraphs [0016]-[0018] and [0021]-[0029].** The instructions are verifying the authenticity of one or more functions utilized by a compressor/decompressor (codec) to assist in decoding the digital content. **See Figure 5, 510 and 520 and Specification at page 13, paragraph [0041].** The program of instructions, when executed by a processing unit, causes the processing unit to call a function of a first component of a system module from the codec. **See Figure 5, 530 and Specification at page 13, paragraph [0042].** Further, intercept the function call to the first component of the system module in order to enforce conditions of use of the content by examining a voucher describing the integrity of one or more functions that are to be accessed by the codec **See Figure 5, 540 and Specification at page 13, paragraph [0042],** and verify the authenticity of the first component of the system module at the integrity agent by computing a digest of a memory image of the first component. **See Figure 5, 550 and 560 and Specification at page 14, paragraph [0043].**

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, and 4-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over BOCCON-GIBOD (U.S. Pub. No. 2001/0016836) (hereinafter “*BOCCON-GIBOD*”) in view of Angelo (U.S. Patent No. 5,944,821) (hereinafter “*Angelo*”).

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *BOCCON-GIBOD* in view of *Angelo* further in view of Reid (U.S. Patent No. 5,844,575) (hereinafter “*Reid*”).

VII. ARGUMENTS

1. THE PENDING CLAIMS WERE IMPROPERLY REJECTED UNDER 35 U.S.C. § 103(a) BECAUSE THE COMBINATION OF *BOCCON-GIBOD* AND *ANGELO* DO NOT DISCLOSE OR SUGGEST EACH AND EVERY FEATURE OF THE PENDING CLAIMS

Appellant respectfully submits that the combination of *BOCCON-GIBOD* and *Angelo* fails to disclose or suggest the claimed invention for the reasons set forth below. As the Honorable Board is well aware, in order to establish a *prima facie* case of obviousness:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” (Emphasis added). *In re Vaech*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Manual of Patent Examining Procedure (MPEP), 8th Edition, Revision 2, May 2004, §2143.

- (A) Claims 1, 2 and 4-24 were improperly rejected because the combination of *BOCCON-GIBOD* and *Angelo* does not disclose or suggest an integrity agent that enforces conditions of use by examining a second voucher describing the integrity of one or more functions that are to be accessed by a codec

Claims 1, 2 and 4-24 are not obvious in view of *BOCCON-GIBOD* and *Angelo* under 35 U.S.C. § 103(a). For example, Appellant’s claim 1 recites:

A computer system comprising:
a compressor/decompressor (codec);
a system module having one or more functions

called by the codec to render compressed content;
and

an integrity agent to enforce conditions of use for the received content by examining a first voucher describing the integrity of the codec and a second voucher describing the integrity of the one or more functions that are to be accessed by the codec.

Appellant's claim 7 recites:

A trusted player comprising:
a compressor/decompressor (codec); and
an integrity agent to enforce conditions of use for content received at the trusted player by examining a first voucher describing the integrity of the codec and a second voucher describing the integrity of the one or more functions that are to be accessed by the codec.

Appellant's claim 13 recites:

A method comprising:
receiving content at a compressor/decompressor (codec);
calling a function of a first component of a system module from the codec to assist in decoding the digital content;
intercepting the function call to the first component of the system module at an integrity agent in order to enforce conditions of use of the content by examining a voucher describing the integrity of one or more functions that are to be accessed by the codec; and
verifying the authenticity of the first component of the system module at the integrity agent by computing a digest of a memory image of the first component.

Appellant's claim 20 recites:

An article of manufacture including one or more computer readable media that embody a program of instructions for verifying the authenticity of one or more functions utilized by a compressor/decompressor (codec) to assist in decoding the digital content, wherein the program of instructions, when executed by a processing unit, causes the processing unit to:
call a function of a first component of a system

module from the codec;

intercept the function call to the first component of the system module in order to enforce conditions of use of the content by examining a voucher describing the integrity of one or more functions that are to be accessed by the codec; and

verify the authenticity of the first component of the system module at the integrity agent by computing a digest of a memory image of the first component.

BOCCON-GIBOD discloses a system and method of distributing music and video signals over a network. The system includes a client. The client includes client helper software having a client manager module, playback module, codec units, encryption/decryption modules, key store, key store lock and device manager. The playback module communicates with the codec units to decompress music and video content before playback. See *BOCCON-GIBOD* at paragraphs [0025] – [0026].

Angelo discloses a computer system that incorporates the capability to protect against the execution of unauthorized or modified code in real time. A secure hash table is provided that contains a secure hash value for each program that the user wants to track. The hash table is stored in protected memory that can only be accessed when the computer system is in a system management mode. Execution of a secured application is then predicated on its current hash value matching a corresponding hash value in the secure hash table. When a user attempts to execute a secured application, a system management interrupt (SMI) is generated. The SMI places the computer system in a system management mode, causing an SMI handler routine to be executed. The SMI handler first generates a current hash value for the program to be executed. Next, the SMI handler checks the stored hash table for an entry for the secured application. If a hash value entry is found, it is compared with the newly-calculated hash value for the

secured application. In the event the two values match, the integrity of the application is guaranteed and it is loaded into memory and executed. For security-sensitive applications, the entire application or a portion of it is loaded into system management mode memory (hereinafter "SMM memory") prior to running the execution. If the two values do not match, the user is alerted to the discrepancy and may be given the option to update or override the stored hash table entry by entering an administrative password. See *Angelo* at col. 4, ll. 26 – col. 5, ll. 5.

Appellant submits that any combination of *BOCCON-GIBOD* and *Angelo* fail to disclose or suggest an integrity agent that enforces conditions of use by examining a second voucher describing the integrity of one or more functions that are to be accessed by the codec. In fact, the Examiner admits that *BOCCON-GIBOD* does not disclose an integrity agent. See the Final Office Action at page 4, paragraph 4. Instead, the Examiner asserts that *Angelo* discloses such an integrity agent. ID.

As described above, *Angelo* discloses using a hash table that contains a secure hash value for each program that a user wants to track in order to protect against the execution of unauthorized or modified code. In the Advisory Action at page 2, the Examiner maintains that:

Angelo US 5,944,821 teaches preventing execution of unauthorized content (Col 12 lines 1-23) the examiner asserts that this is enforcing conditions of use. Angelo teaches hash tables that describe the integrity of the application in question, if the hash does not match the newly created hash, the integrity of the file has been breached. Angelo teaches a second voucher in that Angelo teaches [sic] a hash table for multiple pieces of software that are checked when accessed, but before execution.

Appellant disagrees with the Examiner's interpretation of the *Angelo* reference. *Angelo* explicitly discloses that the hash table contains a secure hash value for each program that a user wants to track. There is no disclosure in *Angelo* of the hash table having a hash value for functions accessed by a program. Therefore, *Angelo* cannot disclose or suggest examining a voucher describing the integrity of one or more functions that are to be accessed by a codec.

Since neither *BOCCON-GIBOD* nor *Angelo* disclose or suggest an integrity agent that enforces conditions of use for received content by examining a second voucher describing the integrity of the one or more functions that are to be accessed by the codec, any combination of *BOCCON-GIBOD* and *Angelo* would not disclose or suggest such a feature.

Consequently, the Examiner has not established a prima facie case of obviousness, and the Examiner's rejection of claims 1, 7, 13 and 20 under 35 U.S.C. §103(a) as being obvious over the combination of *BOCCON-GIBOD* and *Angelo*.

Claims 2-6 depend from claim 1, claims 8-12 depend from claim 7, claims 14-19 depend from claim 13 and claims 21-24 depend from claim 20. Given that dependent claims necessarily include the limitations of the claims from which they depend, Appellant submits that the invention as claimed in claims 2-6, 8-12, 14-19 and 21-24 are similarly patentable over the combination of *BOCCON-GIBOD* and *Angelo*.

For the forgoing reasons, Appellant submits that the Examiner has failed to search and find a printed publication or patent that discloses the claimed invention as set forth in MPEP § 706.02(a).

Thus, the Examiner erred in rejecting claims 1-24 under 35 U.S.C. § 103(a).

2. **THE PENDING CLAIM 3 WAS IMPROPERLY REJECTED UNDER 35 U.S.C. § 103(a) BECAUSE ANY COMBINATION OF *BOCCON-GIBOD*, *ANGELO* AND *REID* DO NOT DISCLOSE OR SUGGEST EACH AND EVERY FEATURE OF THE PENDING CLAIMS**

Appellant respectfully submits that the combination of *BOCCON-GIBOD*, *Angelo* and *Reid* fails to disclose or suggest the claimed invention for the reasons set forth below.

(A) **Claim 3 was improperly rejected because the combination of *BOCCON-GIBOD*, *Angelo* and *Reid* do not disclose or suggest an integrity agent that enforces conditions of use by examining a second voucher describing the integrity of one or more functions that are to be accessed by a codec**

Claim 3 is not obvious in view of *BOCCON-GIBOD*, *Angelo* and *Reid* under 35 U.S.C. §103(a). Claim 3 depends from independent claim 1 and necessarily includes each of the features. As discussed above, the combination of *BOCCON-GIBOD* and *Angelo* does not disclose or suggest each and every element of the Appellant's independent claim 1. For example, *BOCCON-GIBOD* and *Angelo* fails to disclose or suggest an integrity agent that enforces conditions of use by examining a second voucher describing the integrity of one or more functions that are to be accessed by the codec.

With respect to claim 3, the Examiner states that *Reid* discloses a compressor using a function providing memory allocation. See Final Office Action at line 12. However, *Reid* does not disclose or suggest an integrity agent that enforces conditions of use by examining a second voucher describing the integrity of one or more functions that are to be accessed by the codec. Therefore, any combination of *BOCCON-GIBOD*, *Angelo* and *Reid* would also not disclose or suggest an integrity agent that enforces

conditions of use by examining a second voucher describing the integrity of one or more functions that are to be accessed by the codec.

Since the combination of *BOCCON-GIBOD*, *Angelo* and *Reid* fails to disclose all of the elements required by Appellant's independent claim 1, the combination of *BOCCON-GIBOD*, *Angelo* and *Reid* fails to teach or suggest each and every element of Appellant's invention as embodied in the claims. Consequently, the Examiner has not established a prima facie case of obviousness, and the Examiner's rejection of claim 3 under 35 U.S.C. §103(a) as being obvious over *Kitahara* and *Nelson* should be reversed.

VIII. CONCLUSION


Appellant respectfully submits that all the appealed claims in this application are patentable and request that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

Appellant respectfully believes that the \$500.00 to cover the appeal fee for one other than a small entity as specified in 37 C.F.R. § 1.17(c) is not necessary as it was paid with the Appeal Brief filed on August 14, 2006. Please charge any shortages and credit any overpayment to our Deposit Account No. 02-2666.

Respectfully submitted,


BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: September 20, 2006



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FIRST CLASS CERTIFICATE OF MAILING	
I hereby certify that I am causing the above-referenced correspondence to be deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and that this paper or fee has been addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450	
Date of Deposit:	<u>September 20, 2006</u>
Name of Person Mailing Correspondence:	<u>Leah Schwenke</u>
 Signature	<u>9/20/06</u> Date



IX. APPENDIX OF CLAIMS (37 C.F.R. § 1.192(c)(9))

1. A computer system comprising:

a compressor/decompressor (codec);

a system module having one or more functions called by the codec to render compressed content; and

an integrity agent to enforce conditions of use for the received content by examining a first voucher describing the integrity of the codec and a second voucher describing the integrity of the one or more functions that are to be accessed by the codec.
2. The computer system of claim 1 wherein the integrity agent decodes the received content prior to verifying the one or more functions.
3. The computer system of claim 1 wherein the system module comprises a first function to provide memory allocation for the codec.
4. The computer system of claim 1 wherein the integrity agent verifies the first voucher by comparing the first voucher to the codec.
5. The computer system of claim 1 wherein the integrity agent verifies the second voucher by comparing the second voucher to a first function of the system module.
6. The computer system of claim 1 further comprising a player application.

7. A trusted player comprising:
a compressor/decompressor (codec); and
an integrity agent to enforce conditions of use for content received at the trusted player by examining a first voucher describing the integrity of the codec and a second voucher describing the integrity of one or more functions that are to be accessed by the codec.
8. The trusted player of claim 7 wherein the integrity agent decodes the received content prior to verifying the one or more functions.
9. The trusted player of claim 7 further comprising a system module, wherein the one or more functions utilized by the codec to assist in the decompression of received content codec are included within the system module.
10. The computer system of claim 7 wherein the integrity agent verifies the first voucher by comparing the first voucher to the codec.
11. The computer system of claim 7 wherein the integrity agent verifies the second voucher by comparing the second voucher to a first function of the system module.
12. The trusted player of claim 8 further comprising a player application.
13. A method comprising:

receiving content at a compressor/decompressor (codec);

calling a function of a first component of a system module from the codec to assist in decoding the digital content;

intercepting the function call to the first component of the system module at an integrity agent in order to enforce conditions of use of the content by examining a voucher describing the integrity of one or more functions that are to be accessed by the codec;; and

verifying the authenticity of the first component of the system module at the integrity agent by computing a digest of a memory image of the first component.

14. The method of claim 13 further comprising calling a function of a second component of a system module from the codec.

15. The method of claim 13 further comprising preventing the playback of the digital content if the first module is not authentic.

16. The method of claim 13 further comprising executing the function call to the first component of the system module if the first module is authentic.

17. The method of claim 16 further comprising:

determining whether the codec is to call a function of a second component of the system module to assist in decoding the content;

if so, intercepting the function call to the second component of the system module

at the integrity agent; and

verifying the authenticity of the second component of the system module at the integrity agent.

18. The method of claim 17 further comprising playing the digital content if it is determined that the codec is not to call a function of a second component of the system module to assist in decoding the content.

19. The method of claim 16 further comprising:

verifying the authenticity of the second component of the system module prior to calling the function of the first component of a system module; and

preventing the playback of the digital content if the codec is not authentic.

20. An article of manufacture including one or more computer readable media that embody a program of instructions for verifying the authenticity of one or more functions utilized by a compressor/decompressor (codec) to assist in decoding the digital content, wherein the program of instructions, when executed by a processing unit, causes the processing unit to:

call a function of a first component of a system module from the codec;

intercept the function call to the first component of the system module in order to enforce conditions of use of the content by examining a voucher describing the integrity of one or more functions that are to be accessed by the codec; and

verify the authenticity of the first component of the system module at the integrity agent by computing a digest of a memory image of the first component.

21. The article of manufacture of claim 20 wherein the program of instructions, when executed by a processing unit, further causes the processing unit to call a function of a second component of a system module from the codec.

22. The article of manufacture of claim 20 wherein the program of instructions, when executed by a processing unit, further causes the processing unit to prevent the playback of the digital content if the first module is not authentic.

23. The method of claim 20 wherein the program of instructions, when executed by a processing unit, further causes the processing unit to execute the function call to the first component of the system module if the first module is authentic.

24. The method of claim 23 wherein the program of instructions, when executed by a processing unit, further causes the processing unit to:

determine whether the codec is to call a function of a second component of the system module to assist in decoding the content;

if so, intercept the function call to the second component of the system module;

and

verify the authenticity of the second component of the system module.

X. EVIDENCE APPENDIX

None.

XI. RELATED PROCEEDINGS APPENDIX

None.



FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

Complete if Known

Application Number	09/821,271
Filing Date	March 29, 2001
First Named Inventor	Richard L. Maliszewski
Examiner Name	Brown, Christopher J.
Art Unit	2134
Attorney Docket No.	42390P10448

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$) 0.00

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below

☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s)

☒ Credit any overpayments

under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20.

FEE CALCULATION

1. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
24	24* = 0	50.00	\$0.00
4	4* = 0	200.00	\$0.00

Multiple Dependent

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	50	2202	25	Claims in excess of 20
1201	200	2201	100	Independent claims in excess of 3
1203	360	2203	180	Multiple Dependent claim, if not paid
1204	790	2204	395	**Reissue independent claims over original patent
1205	300	2205	150	**Reissue claims in excess of 20 and over original patent

*or number previously paid, if greater. For Reissues, see below

SUBTOTAL (1) (\$) 0.00

2. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1051	130	2051	65	Surcharge - late filing fee or oath
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.
2053	130	2053	130	Non-English specification
1251	120	2251	60	Extension for reply within first month
1252	450	2252	225	Extension for reply within second month
1253	1,020	2253	510	Extension for reply within third month
1254	1,590	2254	795	Extension for reply within fourth month
1255	2,160	2255	1,080	Extension for reply within fifth month
1401	500	2401	250	Notice of Appeal
1402	500	2402	250	Filing a brief in support of an appeal
1403	1,000	2403	500	Request for oral hearing
1451	1,510	2451	1,510	Petition to institute a public use proceeding
1460	130	2460	130	Petitions to the Commissioner
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)
1806	180	1806	180	Submission of Information Disclosure Stmt
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))

Other fee (specify) _____

SUBTOTAL (2)

(\$)

Fee Paid

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09/20/06